

Thinking Like a Scientist

SEEKING SOLUTIONS SCENARIOS

READ THROUGH THE OBSERVATIONS BELOW AND CHOOSE ONE SCENARIO THAT INTERESTS YOU. BRAINSTORM EXPLANATIONS FOR THE OBSERVATIONS AND USE THE EXPLANATIONS TO FORM SEVERAL POSSIBLE HYPOTHESES. THEN DEVELOP ONE OR MORE EXPERIMENTS TO TEST YOUR HYPOTHESES.

Scenario 2

When opening a container of cranberry juice, you noticed the label "refrigerate after opening." You also notice this label on a variety of other food containers, such as mayonnaise bottles and tuna cans. Why does the food have to be refrigerated once the can or bottle is opened, but not before? What would happen if the food were not refrigerated after opening? What does refrigeration do?

Make several hypotheses that could explain why certain foods can remain unrefrigerated before opening, but not after opening. Then design an experiment to test one of your hypotheses. What results would you observe if your hypothesis is true? What results would you observe if your hypothesis is false? List the independent and dependent variables on your experiment(s).